

A Model for Advanced Studies Curricula in Elementary Schools

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Advanced Studies

The core curricular experience is modified, adapted, or supplemented as necessary...rather than more of the same.



Facilitating Connections Between Ideas



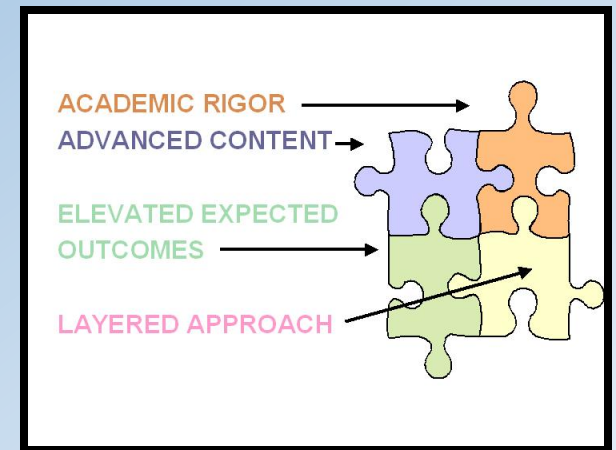
Advanced Studies Curricula Components

1. Academic Rigor

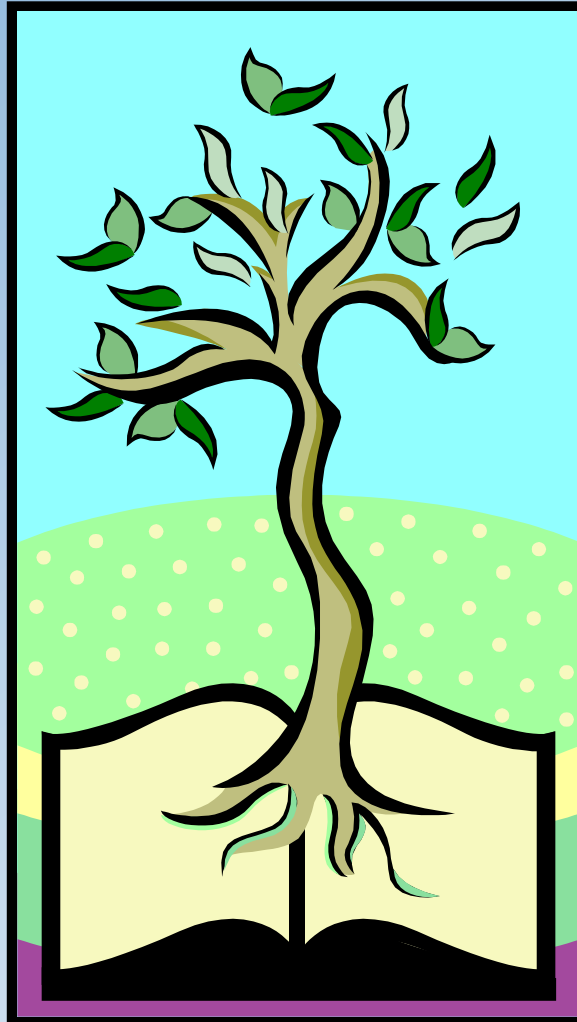
2. Advanced Content

3. Elevated Expected Outcomes

4. Layered Approach



1. Advanced Content



Levels of Understanding

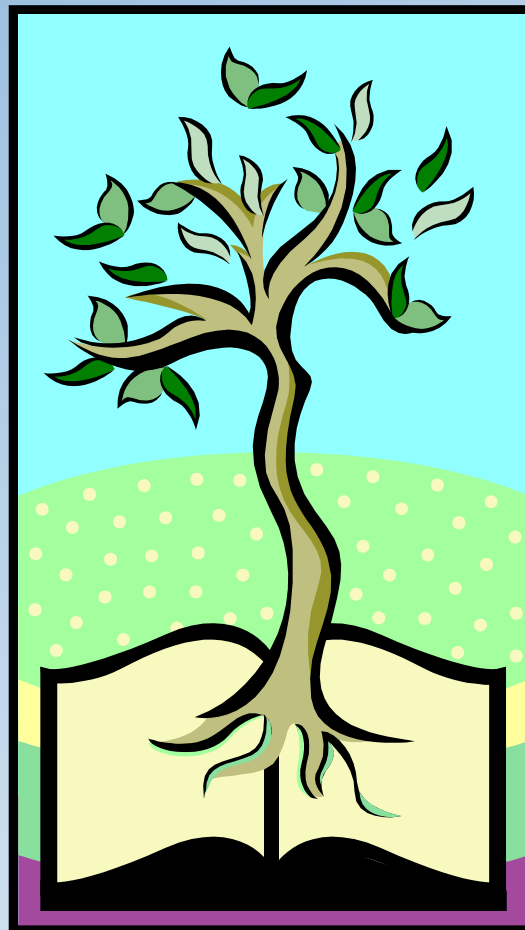
Students differ in their levels of understanding of any content, or proficiency in any skill.



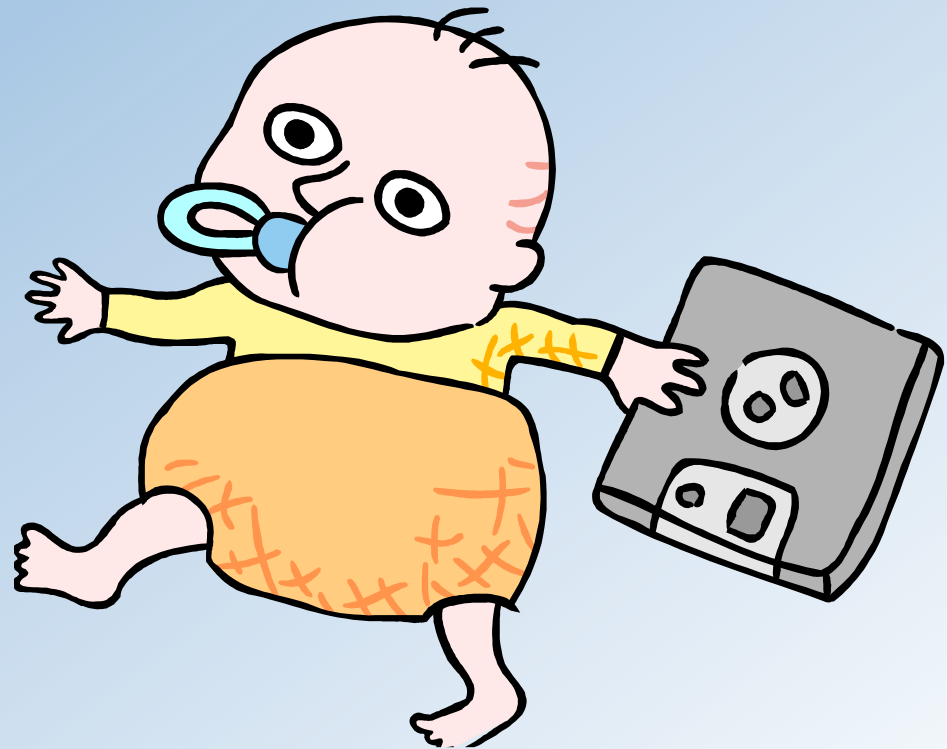
2. Academic Rigor



Grading **MUST** be About Learning



Producers **NOT** Consumers



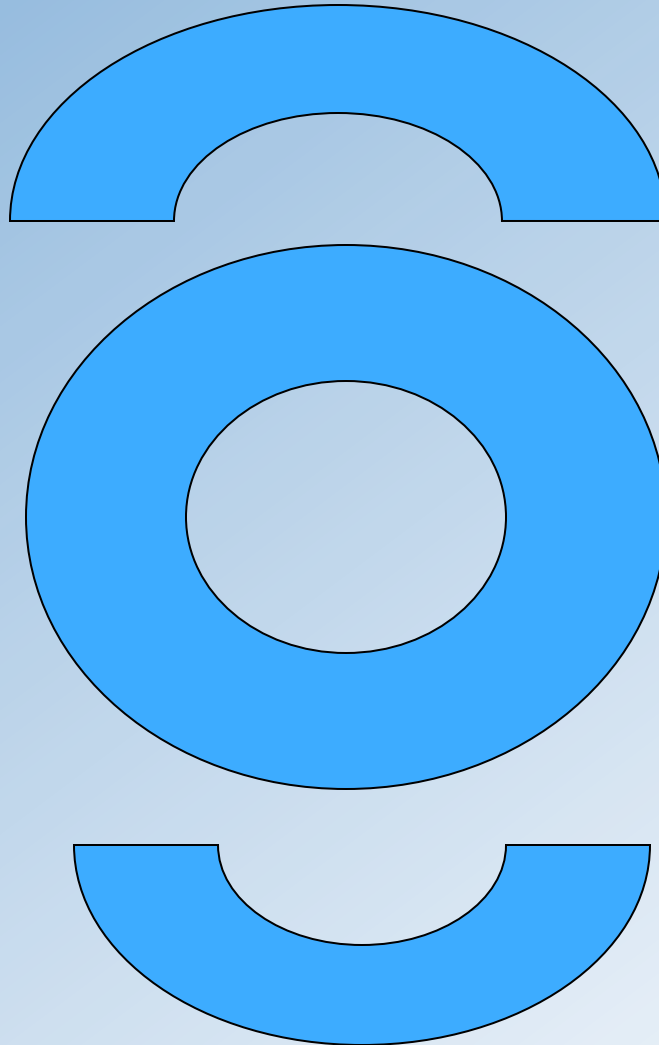
3. Elevated Student Outcomes



A Necessary Combination

1. Flexible grouping
2. Differentiated instructional and curricular strategies
3. High, yet realistic expectations

4. Layered Approach

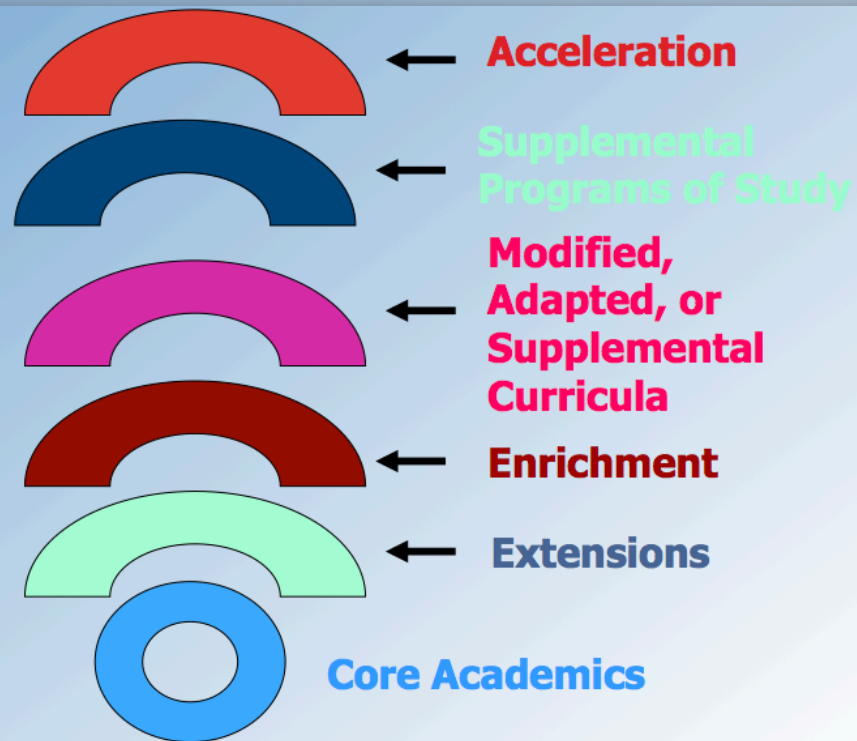


Advanced Studies Curricula

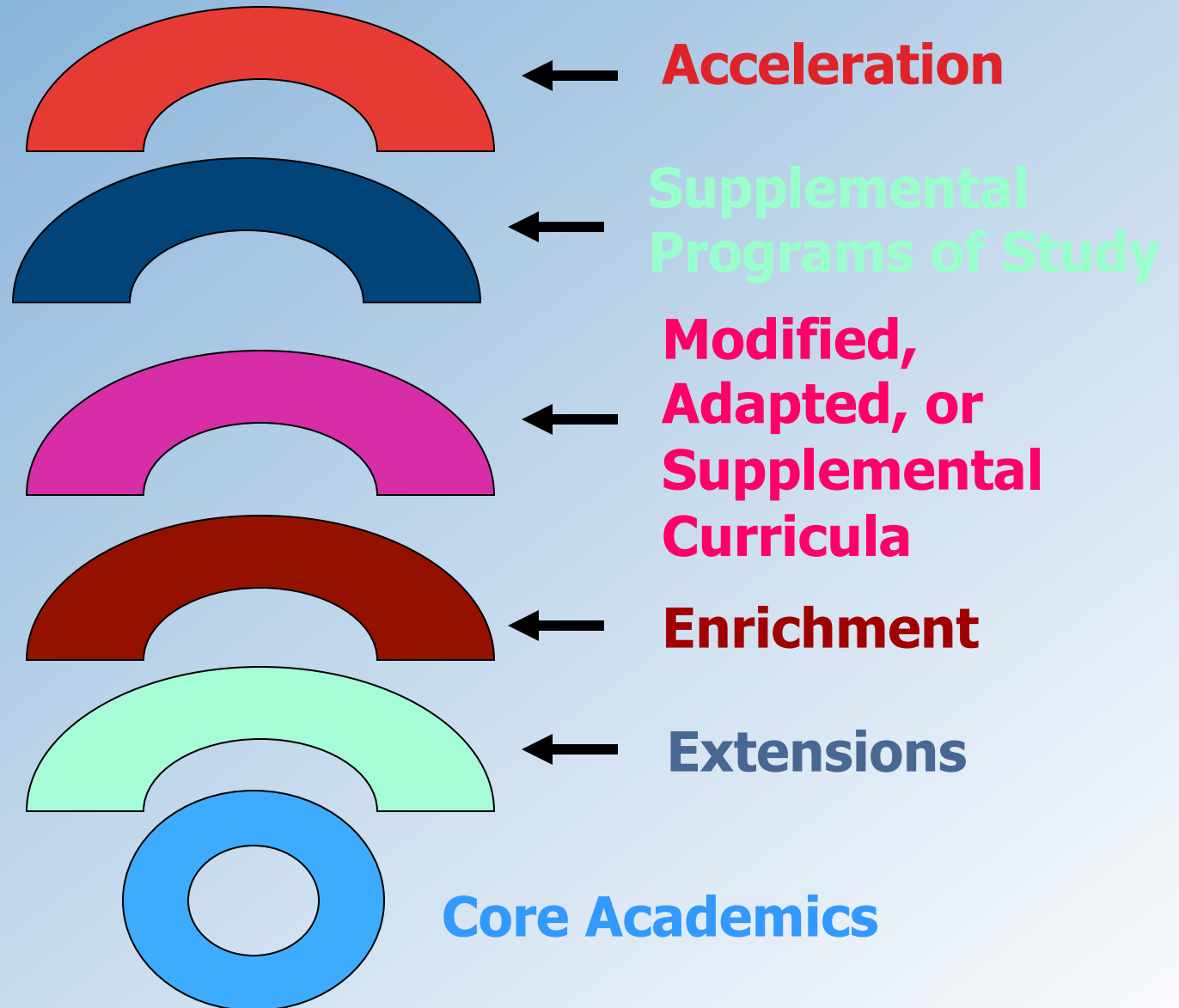
Think about layers of learning rather than separate curricula for gifted learners.



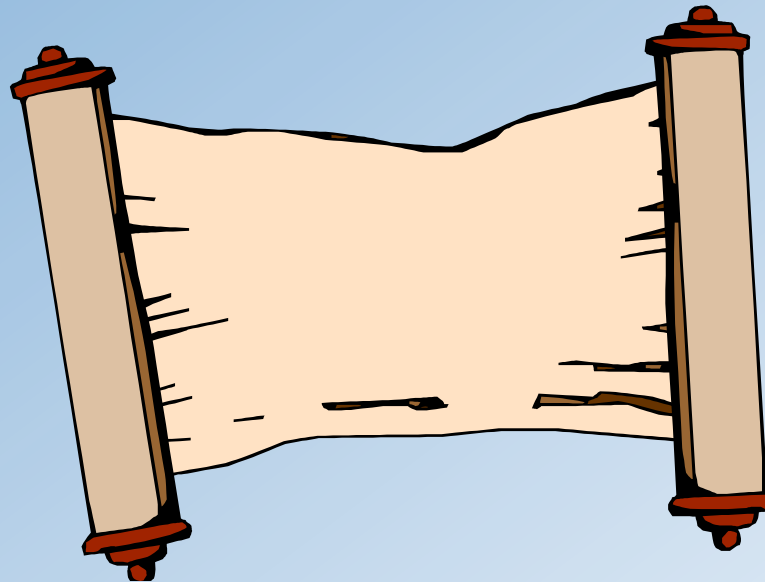
Advanced Studies Curricula



Advanced Studies Curriculum Layers



Extensions



Base 10 Extensions

problems on the next page. Move the "bones" you are not
way to give yourself room to work. 67×43

1	0	6	7
2	1	2	4
3	1	8	2
4	2	4	8
5	0	3	5
6	3	6	4
7	4	2	4
8	4	8	5
9	5	4	6

268


2680

0	1
0	2
0	3
0	4
0	5
0	6
0	7
0	8
0	9

0	8
1	6
2	4
3	2
4	0
5	8
6	6

Contract Extensions

**Talent Development Tic-Tac-Toe
Extension Menu for Grade 3**

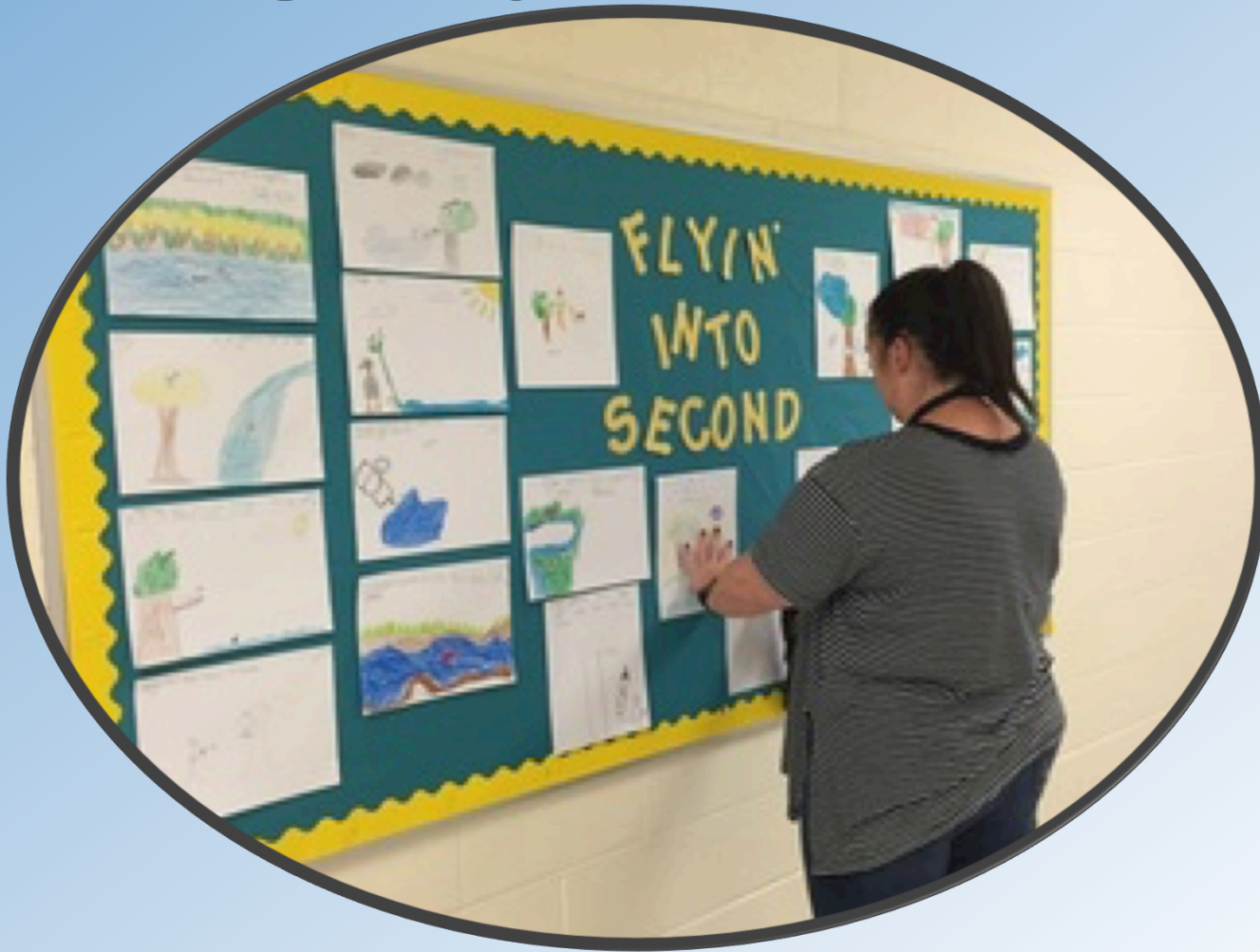


Name: _____ Date: _____

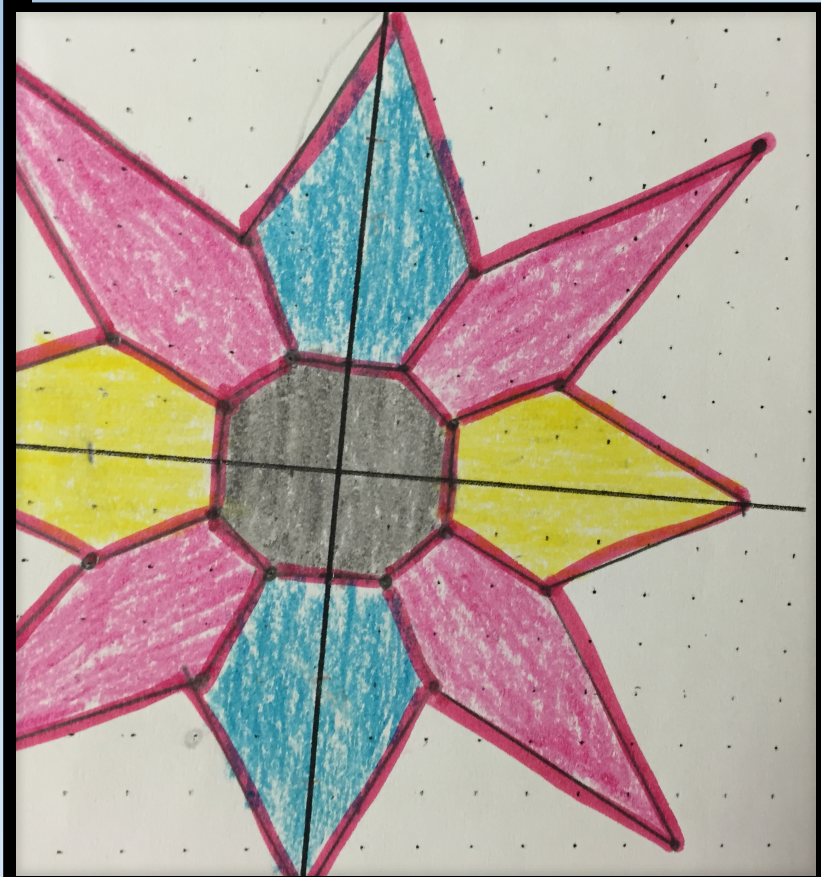
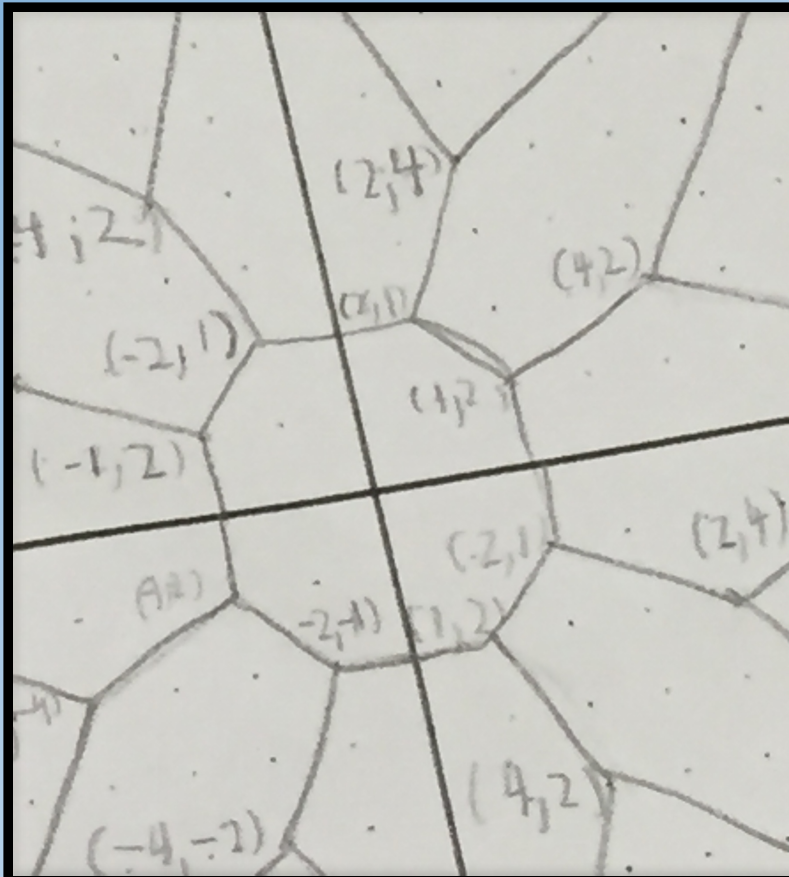
Put a slash in the box when you begin an activity and a backslash when you complete an activity.

1 Predict-A-Plot	2 Story Map	3 Setting the Scene
4 Clueing in to Context Clues	5 Problem Path	6 Cause and Effect
7 Compare Chart	8 Puzzling	9 What's It All About?

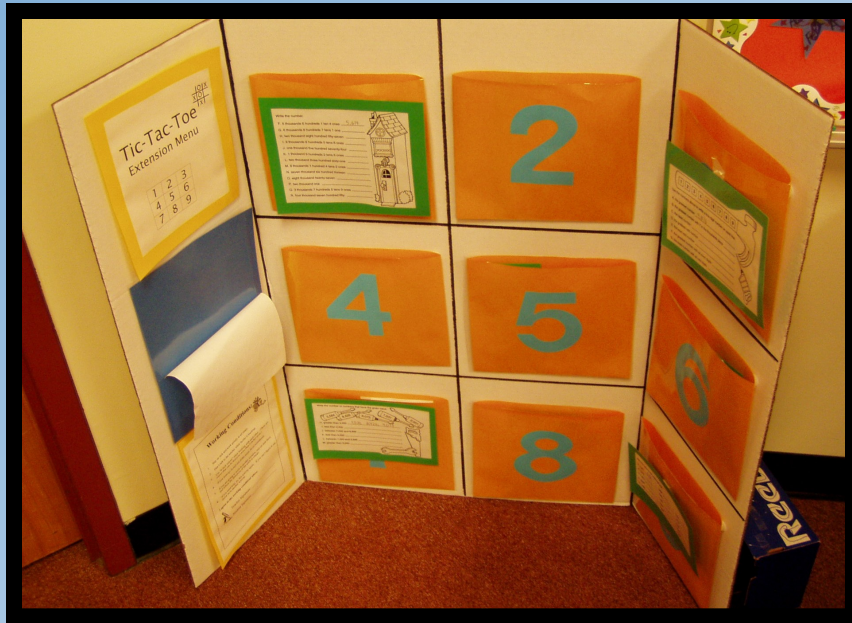
Imagery in Fables



Extension Activities



Independent Extensions



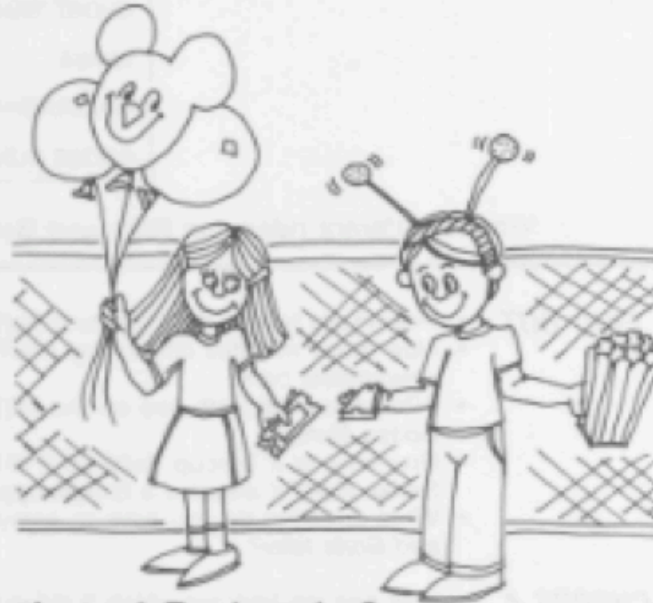
Enrichment



Problem Solving

- 20** "Beth, we can only ride for 10 more minutes," said Boris.
"What rides can we take?" Beth looked at the list of rides.
She and Boris had tickets for 3 rides. She looked for 3 rides
that would take 10 minutes all together.

TEACUP TWIST	6 minutes
GHOST TRAIN	5 minutes
SNAKE	4 minutes
GRASSHOPPER	3 minutes
GOOSE BUMP	2 minutes



What 3 different rides can Beth and Boris take?

Write the names of the rides.

Challenge Problems

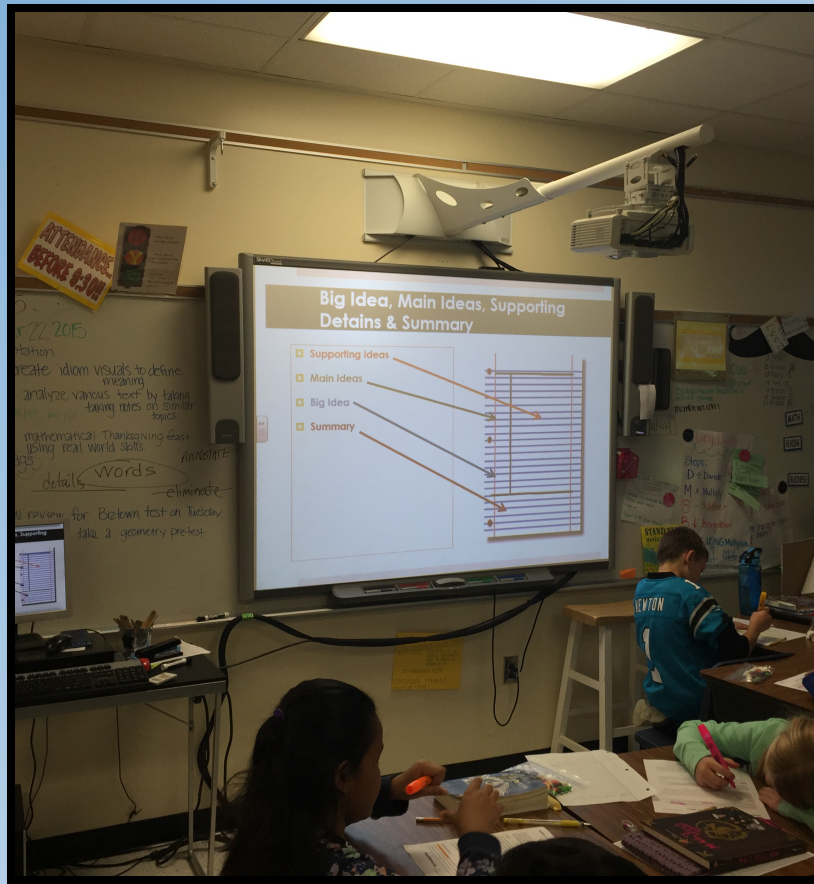
CHALLENGE PROBLEM

Sam paid \$4.00 for 8 bananas. How much would he pay for 12 bananas?
Show how you solved the problem.

Adapt, Modify, & Supplement Curricula



Depth & Complexity



Independent Study

Periodic Table of the Naturally-Occurring Elements

1 H Hydrogen																	2 He Helium									
3 Li Lithium	4 Be Beryllium															5 B Boron	6 C Carbon	7 N Nitrogen	8 O Oxygen	9 F Fluorine	10 Ne Neon					
11 Na Sodium	12 Mg Magnesium															13 Al Aluminum	14 Si Silicon	15 P Phosphorus	16 S Sulfur	17 Cl Chlorine	18 Ar Argon					
19 K Potassium	20 Ca Calcium	21 Sc Scandium	22 Ti Titanium	23 V Vanadium	24 Cr Chromium	25 Mn Manganese	26 Fe Iron	27 Co Cobalt	28 Ni Nickel	29 Cu Copper	30 Zn Zinc	31 Ga Gallium	32 Ge Germanium	33 As Arsenic	34 Se Selenium	35 Br Bromine	36 Kr Krypton									
37 Rb Rubidium	38 Sr Strontium	39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc Technetium	44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	47 Ag Silver	48 Cd Cadmium	49 In Indium	50 Sn Tin	51 Sb Antimony	52 Te Tellurium	53 I Iodine	54 Xe Xenon									
55 Cs Cesium	56 Ba Barium	57 La Lanthanum	72 Hf Hafnium	73 Ta Tantalum	74 W Tungsten	75 Re Rhenium	76 Os Osmium	77 Ir Iridium	78 Pt Platinum	79 Au Gold	80 Hg Mercury	81 Tl Thallium	82 Pb Lead	83 Bi Bismuth	84 Po Polonium	85 At Astatine	86 Rn Radon									
87 Fr Francium	88 Ra Radium	89 Ac Actinium	90 Th Thorium	91 Pa Protactinium	92 U Uranium																					
RARE-EARTH ELEMENTS			58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium	64 Gd Gadolinium	65 Tb Terbium	66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium										

POTASSI MAN



19

HE REACTS VIOLENTLY
WITH WATER TO PROTECT
US!!!

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Mixtures & Solutions: Lesson2, Engineering and the Periodic Table Activity
— Element Superhero Example

Higher-Level Instruction

Socratic Discussion



Problem-Solving Strategies

Socratic Questions Cheat Sheet

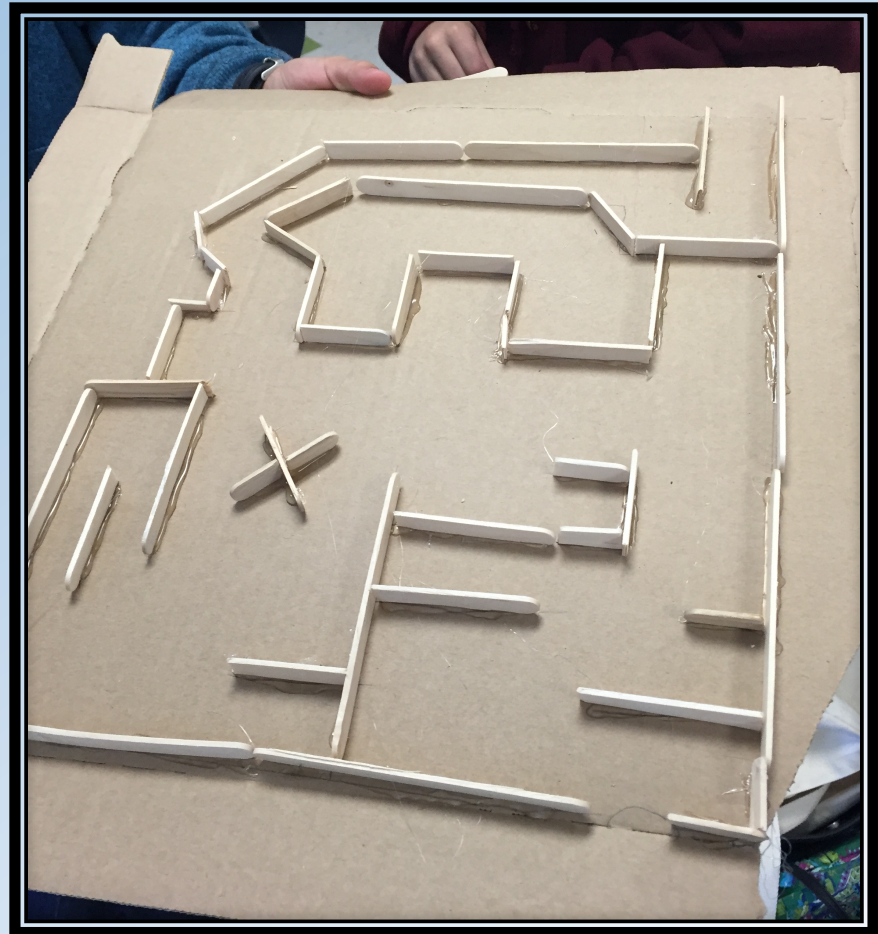
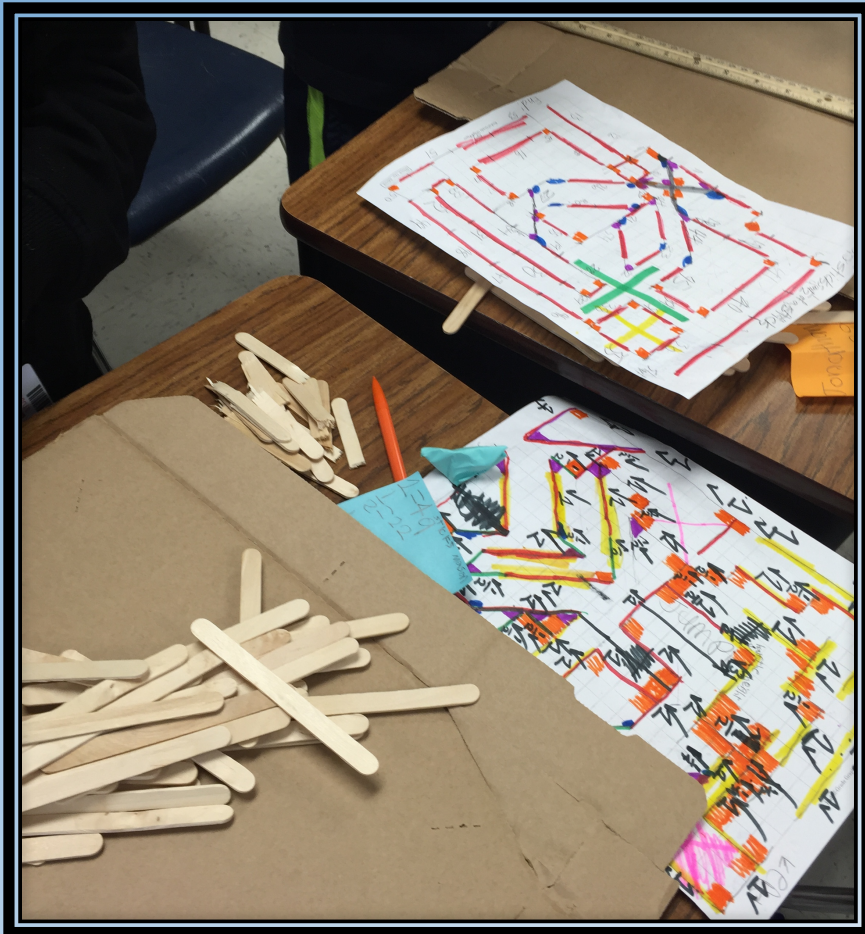
- Clarifying Questions** ask a person to say exactly what they mean. When you use clarifying questions, you help your classmates think precisely about what they are asking or thinking about.
 - Why are you saying that?
 - What exactly do you mean when you say _____?
 - Could you rephrase that please?
 - Could you provide an example?
- Assumption Questions** challenge people to defend something they think is true without proof.
 - Are you assuming that _____? Why?
 - Could you explain why/how you developed this assumption?
 - Can you prove your assumption is true? How?
- Reasoning Questions** ask a person to justify their thinking with evidence.
 - What evidence shows that _____?
 - How can I be sure of what you are saying?
 - What evidence is there to support what you are saying?
 - Can you give me an example of that?
 - Are these reasons strong enough?
- Perspective Questions** ask a person to think about other points of view. You can challenge your classmates by asking them to find other valid perspectives to discuss.
 - How would another person see this issue?
 - How is _____ similar/different from _____?
 - Another way of looking at this is ... does this seem reasonable?
 - What alternative ways of looking at this are there?
 - What is the difference/similarity between _____ and _____?
- Consequence Questions** ask a person to consider what might happen.
 - What could result from that idea?
 - How does _____ fit with what we learned before?
 - What are the consequences of that assumption? How does _____ affect _____?
 - If _____ then what would happen?
- Recursive Questions** ask a person to think about the original question. You can challenge your classmates by turning the questions around on them. Put the ball back in their court to help them think deeply and reflect on the questions they are asking.
 - Why are you asking this question?
 - How would you respond to your own question?
 - Why do you think I asked this question?
 - What does that mean?

Problem Solving Strategies

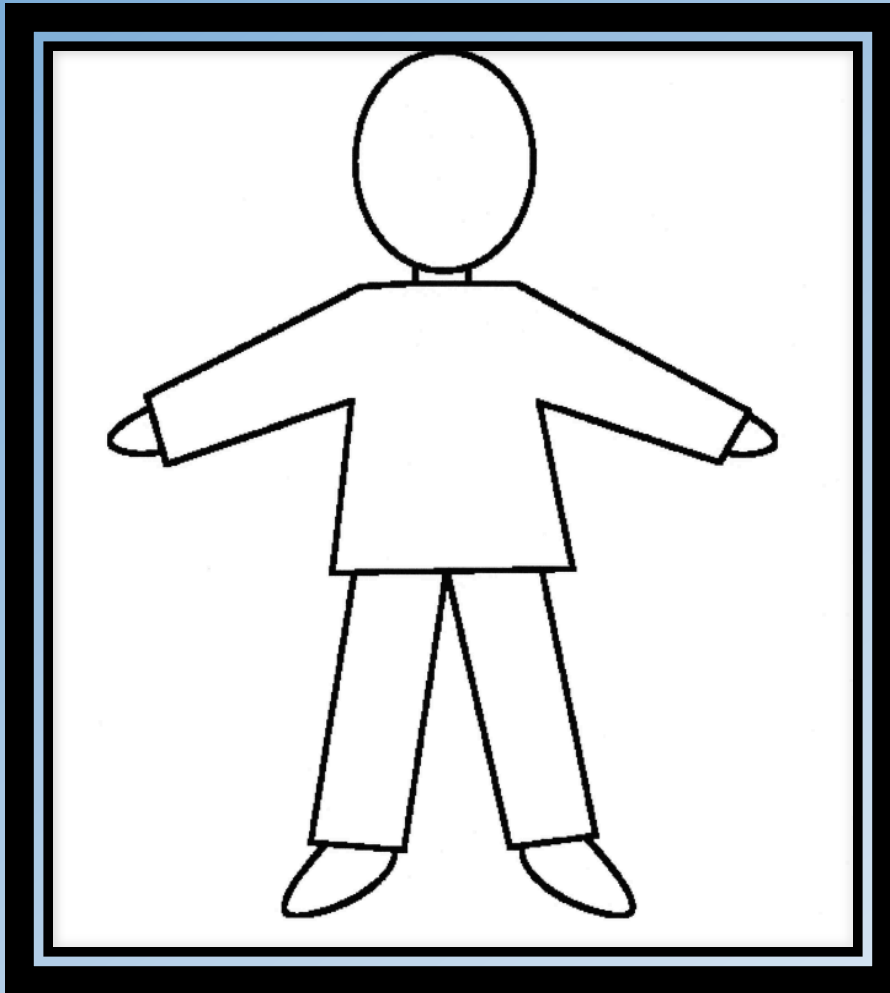
- Patterns
- Use a model
- Picture/diagram
- Logical deduction
- Guess and test
- Make a table
- Organized list
- Work backwards
- Solve a simpler problem
- Write an equation



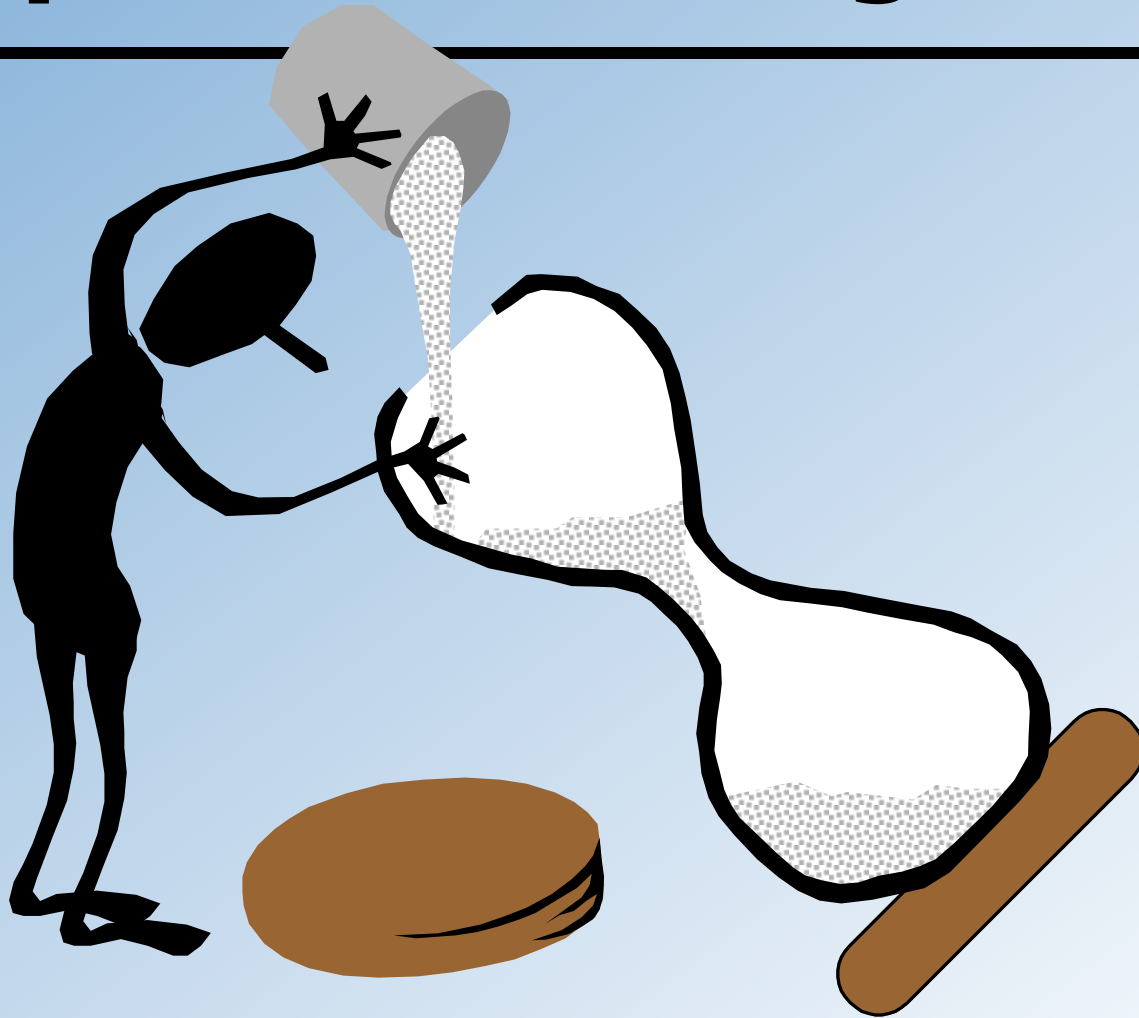
Project-Based Learning



Problem-Based Learning



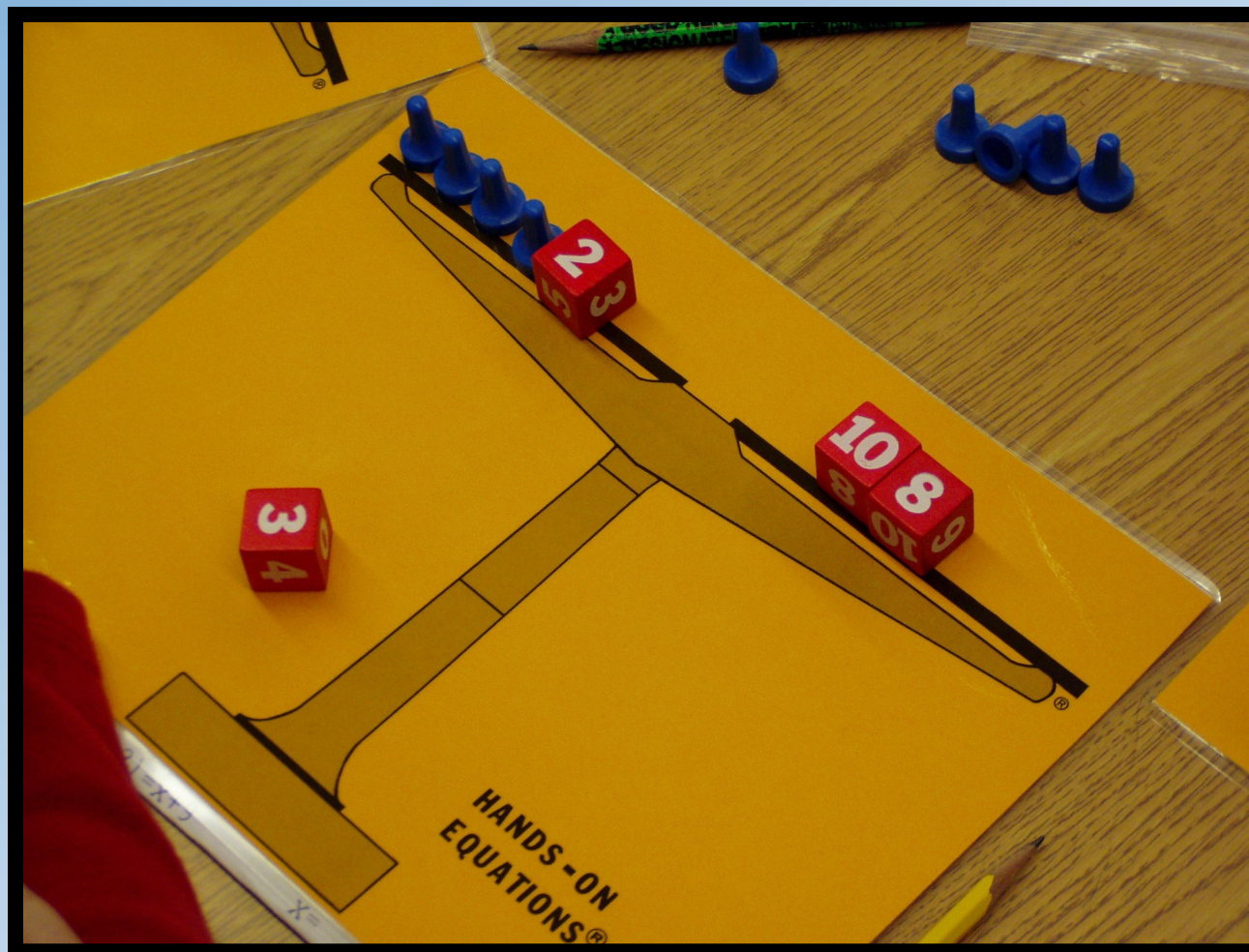
Supplemental Programs



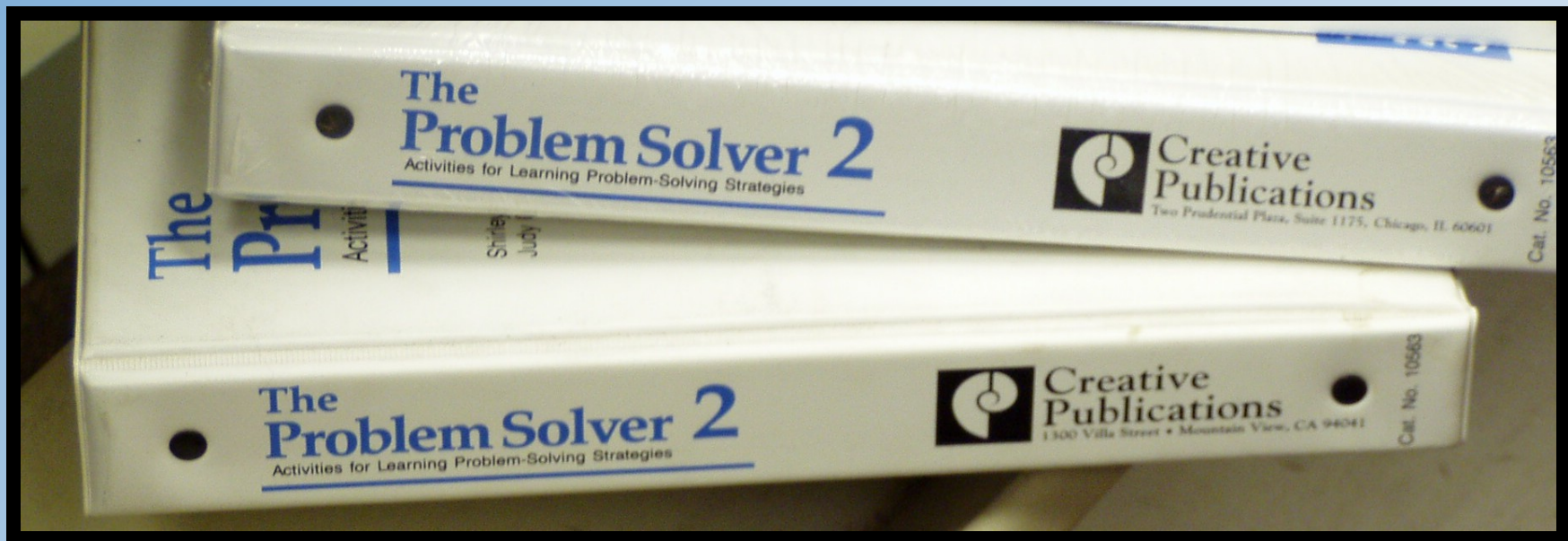
William and Mary LA Curriculum



Hands-On Equations



The Problem Solver



Caesar's English

